



# gako History

The history of the Unguator technology from 1960 up until today

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(1)



(2)



(3)



(4)



(5)



(6)



(7)



(8)

The pharmacist and inventor of the Unguator technology, Albrecht Konietzko laid the foundation of today's standard of automated pharmaceutical compounding all before completing his university education. After 30 years of research and development the technology was ready for the market. The 1992 registered patent was approved in 1994 shortly before launching the first generation of Unguator.


After 20 more years of development, successful product expansion and globalization, the next generation, his son Dipl. Wirtsch.-Ing. Matthias Konietzko and his son-in-law Dipl.-Kfm. Timo Normann, MBA, have developed many new innovations. The life in the day of a pharmacy will be simpler and more efficient with two innovative developments, already registered for patent: the Quick-lock coupling and the replaceable lifting arm.

- 1960** Initial mixing trials and experiments in a closed system by the pharmacist and Inventor Albrecht Konietzko (1)
- 1992** First patent registration for the Unguator technology
- 1994** Unguator B - The first GMP standard, compounding in a pharmacy up to 200 ml (2)
- 1998** Unguator e - compounding up to 500 ml with an automated mixing system (3)
- 2004** Unguator 2000 - fully automated compounding up to 1000 ml and RS232 interface (4)
- 2006** Unguator 2100 - improved usability and USB interface (5)
- 2012** Unguator QMS - validated quality and integrated mixing programs for NRF formulations (6)
- 2015** gako unguator BASIC - Quick-lock coupling, RS232 port, touch panel, integrated time tracking, compounding up to 500 ml with manual, but guided lifting (7)
- 2015** gako unguator EMP - Quick-lock coupling RS232 port, touch panel, integrated time tracking, compounding up to 500 ml with automated lifting (7)
- 2016** gako unguator PRO - Quick-lock coupling, replaceable lifting arm, 10.1 inch touch screen, integrated barcode scanner, multiple interfaces, preparations up to 2000 ml. (8)


# Innovation and more!

An overview of the new developments of the gako unguator




 quick-lock coupling:  
The mixing shaft will be loaded directly from the front into the lifting arm.




 Slide the mixing unit upwards...




 ...and with a slight turn the unit will be fixed in place - ready!




 The lifting arm can be easily and quickly replaced - e.g. to stir 2000 ml preparations.



 Connectivity to accommodate, electronic scales, printers, network, keyboard and more



 State of the art touch technology even for the BASIC and EMP for easy handling and cleaning.



Discover the quick-lock coupling following the link: [goo.gl/gtDmLt](https://goo.gl/gtDmLt)

# gako unguator PRO – our Masterpiece

The gako unguator PRO - the complete solution for your pharmacy

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The gako unguator PRO will not only support you in GMP compounding of semi-solid preparations up to 2000 ml, it will also be useful to all other compounding needs in your pharmacy. It is the right step into the future for pharmaceutically elegant compounding.

- Mixing jar sizes up to 2000ml
- Quick-lock coupling
- Replaceable lifting arm
- 10.1" touch display
- Intuitive user manual including validated mixing programs
- Integrated barcode scanner
- Automated and free online updates
- Interface for laboratory scales, printer, peripheral equipment, network with 4 USB-, 3 RS232- and 1 RJ45-port/-s
- Integrated QM functional test (IQ/OQ) (in development)
- Remote inspection via **gako service** available
- Quiet operation due to optimized mechanical system and electronics
- More compact setup with enhanced performance
- Rinsable keypad and extensive accessories



Discover the gako unguator PRO following the link: [goo.gl/HhYqQ4](https://goo.gl/HhYqQ4)





# gako unguator

BASIC

# gako unguator

EMP



# gako unguator BASIC & EMP

## Our Classics of the Future

The gako unguator BASIC and EMP - more than just the standard for your pharmacy

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The gako unguator BASIC and EMP will guarantee a GMP compounding from semi-solid preparations up to 500 ml. You only have to decide if you want to lift the jar by hand with the gako unguator BASIC or completely automated with the gako unguator EMP.

Common features:

- Mixing jar sizes up to 500 ml
- Quick-lock coupling
- Touch panel
- Intuitive and user friendly guide
- Mixing time settings
- Ten different mixing speed settings
- Integrated time tracking of total mixing time
- ID-number generated after each mixing process
- Integrated QM functional test (IQ/OQ)
- Quiet operation due to optimized mechanical system and electronics
- More compact setup with enhanced performance
- Including extensive accessories

Distinguish features:

- BASIC: manual guided lifting arm
- EMP: automated lifting arm



Discover the gako unguator BASIC and EMP following the link: [goo.gl/YVgpFi](https://goo.gl/YVgpFi)



# Comparison of the gako unguator Devices

All important facts about the gako unguator devices at a glance

	BASIC	EMP	PRO
jar sizes [ml]	15 - 500	15 - 500	15 - 2000
manual guided lift	■		
automatic lifting arm		■	■
replaceable lifting arm			■
integrated time tracking	■	■	■
rpm	300 - 2400	300 - 2400	300 - 2400
functionality test (IQ / OQ)	■	■	■*
ID-output for easy documentation	■	■	■
weight	10kg / 22lbs	11kg / 24 lbs	16,5kg / 36 lbs
dimensions d x w x h [mm]	255 x 211 x 512	255 x 211 x 512	339 x 293 x 670
touch technology	■	■	■
10,1" touch panel			■
integrated barcode scanner			■
USB-Ports			4
RS232-Ports	1	1	3
RJ45-Ports			1
Ports for scales, printers, network	via additional hardware	via additional hardware	■
rinsable keyboard included			■
performance mixing motor [W]	80	80	169
performance lifting motor [W]		54	54

\*in Entwicklung



# The gako unguator Accessories

Previous Unguator accessories are compatible with the new gako unguator BASIC, EMP and PRO.  
The new gako unguator accessories can be used with former Unguator B/R, e/s, 2000, 2100 and Q.



gako unguator standard mixing blade:  
The standard mixing blade for suspen-  
sions and highly viscous formulations



gako unguator disposable blade:  
Ideal for emulsions, gels and low  
viscous formulations



Varionozzles, applicators and the  
ExactDose for specific applications  
and exact dosage - compatible with all  
jars up to 1000ml



gako unguator AirDynamic and spind-  
le: the perfect assistant for dispensing  
compounds from larger jars



gako unguator jar couplings:  
for easy and hygienic dispensing from  
bulk preparations



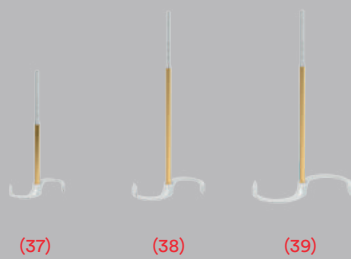
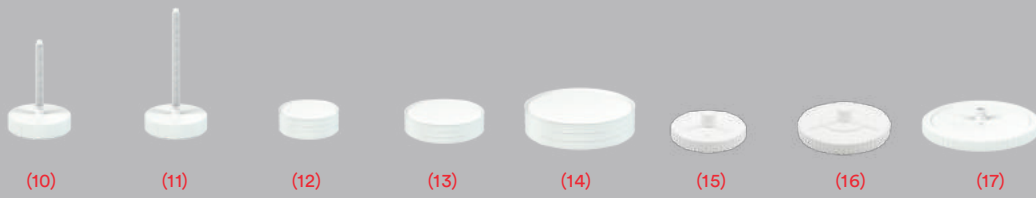
The jars sized from 15 ml to 2000 ml



Discover the gako unguator AirDynamic system 300-2000ml following the link: [goo.gl/7JmPYe](https://goo.gl/7JmPYe)

# The entire accessories at a glance

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Nr.	Article	article no. pu	packing unit (pu)	PPN
1	gako unguator jar 15-20ml standard	AT1000000293	pu 16	111160286020
2	gako unguator jar 30ml standard	AT1000000296	pu 14	111160287710
3	gako unguator jar 50ml standard	AT1000000305	pu 12	111160288373
4	gako unguator jar 100ml standard	AT1000000306	pu 10	111160290857
5	gako unguator jar 200ml standard	AT1000000307	pu 8	111160291423
6	gako unguator jar 300ml AD standard	AT1000000309	pu 4	111160293776
7	gako unguator jar 500ml AD standard	AT1000000311	pu 4	111160296695
8	gako unguator jar 1000ml AD standard	AT1000000312	pu 3	111160299517
9	gako unguator jar 2000ml AD standard	AT1000003244	pu 1	111391832018
10	gako unguator spindle 300ml white	AT1000000556	pu 5	111160362969
11	gako unguator spindle 500ml white	AT1000000557	pu 5	111160363535
12	gako unguator bottom 300-500ml	AT1000000555	pu 5	111160361279
13	gako unguator bottom 1000ml	AT1000000559	pu 3	111160367020
14	gako unguator bottom 2000ml	AT1000003259	pu 2	111391834371
15	gako unguator lid white 300-500ml	AT1000000554	pu 5	111160360616
16	gako unguator lid white 1000ml	AT1000000558	pu 3	111160366454
17	gako unguator lid white 2000ml	AT1000003260	pu 2	111391833708
18	gako unguator varionozzle light blue 1mm	AT1000000533	pu 50	111160356903
19	gako unguator varionozzle yellow 2mm	AT1000000534	pu 50	111160357566
20	gako unguator varionozzle pink 4mm	AT1000000535	pu 50	111160358132
21	gako unguator applicator short with cap white	AT1000000529	pu 20	111160354647
22	gako unguator applicator long white	AT1000000532	pu 10	111160355213
23	gako unguator jar coupling white 15-1000ml	AT1000000537	pu 5	111160359822
24	gako unguator jar coupling white 2000ml	AT1000003246	pu 2	111391836627
25	gako unguator ExactDose 0,5ml red	AT1000000614	pu 5	111160383664
26	gako unguator AirDynamic system 300-2000 ml	AT1000002148	pu 1	111391837290
27	gako unguator disp. blades white 15-30ml	AT1000000625	pu 4x20=80	111160384230
28	gako unguator disp. blades white 50ml	AT1000000627	pu 4x20=80	111160385920
29	gako unguator disp. blades white 100-200ml	AT1000000628	pu 4x25=100	111160386583
30	gako unguator disp. blade shaft 15-100ml	AT1000000563	pu 1	111160368710
31	gako unguator disp. blade shaft 200ml	AT1000000564	pu 1	111160369373
32	gako unguator standard mixing blade (SMB) white 15-30ml	AT1000000574	pu 1	111160371857
33	gako unguator standard mixing blade (SMB) white 50ml	AT1000000575	pu 1	111160372423
34	gako unguator standard mixing blade (SMB) white 100ml	AT1000000576	pu 1	111160373086
35	gako unguator standard mixing blade (SMB) white 200ml	AT1000000577	pu 1	111160374776
36	gako unguator standard mixing blade (SMB) white 300ml	AT1000000578	pu 1	111160375342
37	gako unguator standard mixing blade (SMB) white 500ml	AT1000000579	pu 1	111160377695
38	gako unguator standard mixing blade (SMB) white 1000ml	AT1000000580	pu 1	111160378261
39	gako unguator standard mixing blade (SMB) white 2000ml	AT1000000581	pu 1	111160379951

# **gako**

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